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5668533

Basic Patent (No,Kind,Date): DK 8404872 A0 19841011

PATENT FAMILY:

AUSTRALIA (AU)

Patent (No,Kind,Date): AU 8434054 A1 19850418

THERMAL ENERGY STORAGE MATERIAL (English)

Patent Assignee: DOW CHEMICAL CO

Author (Inventor): LANE GEORGE A; TEOT ARTHUR S; ROSSOW HAROLD E

Priority (No,Kind,Date): US 540726 A 19831011

Applic (No,Kind,Date): AU 8434054 A 19841009

IPC: \* C09K-005/06

Language of Document: English

Patent (No,Kind,Date): AU 551906 B2 19860515

THERMAL ENERGY STORAGE MATERIAL (English)

Patent Assignee: DOW CHEMICAL CO

Author (Inventor): LANE GEORGE A; TEOT ARTHUR S; ROSSOW HAROLD E

Priority (No,Kind,Date): US 540726 A 19831011

Applic (No,Kind,Date): AU 8434054 A 19841009

IPC: \* C09K-005/06

Language of Document: English

CANADA (CA)

Patent (No,Kind,Date): CA 1242577 A1 19881004

REVERSIBLE PHASE CHANGE COMPOSITION FOR STORING THERMAL ENERGY (English  
; French)

Patent Assignee: DOW CHEMICAL CO

Author (Inventor): LANE GEORGE A; TEOT ARTHUR S; ROSSOW HAROLD E

Priority (No,Kind,Date): US 540726 A 19831011

Applic (No,Kind,Date): CA 464256 A 19840928

National Class: \* 31-34

IPC: \* C09K-005/06

Language of Document: English

GERMANY (DE)

Patent (No,Kind,Date): DE 3465204 C0 19870910

REVERSIBLE PHASE CHANGE COMPOSITION FOR STORING THERMAL ENERGY (English  
; French; German)

Patent Assignee: DOW CHEMICAL CO (US)

Author (Inventor): LANE GEORGE A; TEOT ARTHUR S; ROSSOW HAROLD E

Priority (No,Kind,Date): US 540726 A 19831011

Applic (No,Kind,Date): EP 84112148 A 19841010

IPC: \* C09K-005/06

CA Abstract No: \* 103(24)198628X

Derwent WPI Acc No: \* C 85-123876

Language of Document: English; French; German

GERMANY (DE)

Legal Status (No,Type,Date,Code,Text):

DE 3465204 P 19870910 DE REF CORRESPONDS TO  
(ENTSPRICHT)

EP 142028 P 19870910

DE 3465204 P 19880901 DE 8364 NO OPPOSITION DURING TERM OF  
OPPOSITION (EINSPRUCHSFRIST ABGELAUFEN OHNE  
DASS EINSPRUCH ERHOBEN WURDE)

DENMARK (DK)

Patent (No,Kind,Date): DK 8404872 A 19850412

REVERSIBLE FASEAENDRINGSMATERIALER TIL LAGRING AF TERMISK ENERG

(Danish)

Patent Assignee: DOW CHEMICAL CO (US)  
 Author (Inventor): LANE GEORGE A; TEOT ARTHUR S; ROSSOW HAROLD E  
 Priority (No,Kind,Date): US 540726 A 19831011  
 Applic (No,Kind,Date): DK 844872 A 19841011  
 IPC: \* C09K

Language of Document: Danish

Patent (No,Kind,Date): DK 8404872 A0 19841011

REVERSIBLE FASEAENDRINGSMATERIALER TIL LAGRING AF TERMISK ENERGI

(Danish)

Patent Assignee: DOW CHEMICAL CO (US)  
 Author (Inventor): LANE GEORGE A; TEOT ARTHUR S; ROSSOW HAROLD E  
 Priority (No,Kind,Date): US 540726 A 19831011  
 Applic (No,Kind,Date): DK 844872 A 19841011  
 IPC: \* C09K

Language of Document: Danish

Patent (No,Kind,Date): DK 164112 B 19920511

REVERSIBLE FASEAENDRINGSMATERIALER TIL LAGRING AF TERMISK ENERGI

(Danish)

Patent Assignee: DOW CHEMICAL CO (US)  
 Author (Inventor): LANE GEORGE A; TEOT ARTHUR S; ROSSOW HAROLD E  
 Priority (No,Kind,Date): US 540726 A 19831011  
 Applic (No,Kind,Date): DK 844872 A 19841011  
 IPC: \* C09K-005/06

CA Abstract No: \* 103(24)198628X

Derwent WPI Acc No: \* C 85-123876

Language of Document: Danish

Patent (No,Kind,Date): DK 164112 C 19921005

REVERSIBLE FASEAENDRINGSMATERIALER TIL LAGRING AF TERMISK ENERGI

(Danish)

Patent Assignee: DOW CHEMICAL CO (US)  
 Author (Inventor): LANE GEORGE A; TEOT ARTHUR S; ROSSOW HAROLD E  
 Priority (No,Kind,Date): US 540726 A 19831011  
 Applic (No,Kind,Date): DK 844872 A 19841011  
 IPC: \* C09K-005/06

CA Abstract No: \* 103(24)198628X

Derwent WPI Acc No: \* C 85-123876

Language of Document: Danish

DENMARK (DK)

Legal Status (No,Type,Date,Code,Text):

DK 844872 A 19831011 DK AAA PRIORITY OF THE APPL.

(PATENT APPL.)

US 540726 A 19831011

DK 844872 A 19841011 DK AEA DATA OF DOMESTIC APPL.

DK 844872 A 19841011

DK 844872 A 19850412 DK A PUBLISHED APPLICATION

DK 844872 A 19920511 DK AGA PUBLISHED AS APPLICATION

OPEN FOR PUBLIC INSPECTION (PUBLISHED AS

APPL. OPEN FOR PUBLIC INSPECTION)

DK 164112 B 19920511

DK 844872 A 19921005 DK AGA PATENT GRANTED

DK 164112 C 19921005

DK 164112 P 19831011 DK AA PRIORITY OF THE PATENT

US 540726 A 19831011

DK 164112 P 19841011 DK AE APPLICATION DATA (PATENT)

(APPL. DATA (PATENT))

DK 844872 A 19841011

DK 164112 P 19920511 DK B APPLICATION PUBLISHED FOR

PUBLIC EXAMINATION (APPL. PUBLISHED FOR

## PUBLIC EXAMINATION)

DK 164112 P 19921005 DK C PATENT GRANTED  
 DK 164112 P 19970616 DK PBP PATENT LAPSED

## EUROPEAN PATENT OFFICE (EP)

Patent (No,Kind,Date): EP 142028 A1 19850522  
 REVERSIBLE PHASE CHANGE COMPOSITION FOR STORING THERMAL ENERGY  
 (English)

Patent Assignee: DOW CHEMICAL CO (US)  
 Author (Inventor): LANE GEORGE A; TEOT ARTHUR S; ROSSOW HAROLD E  
 Priority (No,Kind,Date): US 540726 A 19831011  
 Applic (No,Kind,Date): EP 84112148 A 19841010  
 Designated States: (National) BE; CH; DE; FR; GB; IT; LI; NL; SE  
 IPC: \* C09K-005/06

CA Abstract No: \* 103(24)198628X  
 Derwent WPI Acc No: \* C 85-123876

Language of Document: English

Patent (No,Kind,Date): EP 142028 B1 19870805  
 REVERSIBLE PHASE CHANGE COMPOSITION FOR STORING THERMAL ENERGY  
 (English)

Patent Assignee: DOW CHEMICAL CO (US)  
 Author (Inventor): LANE GEORGE A; TEOT ARTHUR S; ROSSOW HAROLD E  
 Priority (No,Kind,Date): US 540726 A 19831011  
 Applic (No,Kind,Date): EP 84112148 A 19841010  
 Designated States: (National) BE; CH; DE; FR; GB; IT; LI; NL; SE  
 IPC: \* C09K-005/06

Language of Document: English

## EUROPEAN PATENT OFFICE (EP)

Legal Status (No,Type,Date,Code,Text):

EP 142028	P	19831011	EP AA	PRIORITY (PATENT APPLICATION) (PRIORITAET (PATENTANMELDUNG))
				US 540726 A 19831011
EP 142028	P	19841010	EP AE	EP-APPLICATION (EUROPAEISCHE ANMELDUNG)
				EP 84112148 A 19841010
EP 142028	P	19850522	EP AK	DESIGNATED CONTRACTING STATES (BENANNTE VERTRAGSSTAATEN)
EP 142028	P	19850522	EP A1	PUBLICATION OF APPLICATION WITH SEARCH REPORT (VEROEFFENTLICHUNG DER ANMELDUNG MIT RECHERCHENBERICHT)
EP 142028	P	19850925	EP 17P	REQUEST FOR EXAMINATION FILED (PRUEFUNGSANTRAG GESTELLT)
EP 142028	P	19860514	EP 17Q	FIRST EXAMINATION REPORT (ERSTER PRUEFUNGSBESCHIED)
EP 142028	P	19870805	EP AK	DESIGNATED CONTRACTING STATES MENTIONED IN A PATENT SPECIFICATION (IN EINER PATENTSCHRIFT ANGEFUEHRTE BENANNTE VERTRAGSSTAATEN)
EP 142028	P	19870805	EP B1	PATENT SPECIFICATION (PATENTSCHRIFT)
EP 142028	P	19870910	EP REF	CORRESPONDS TO: (ENTSPRICHT)
				DE 3465204 P 19870910
EP 142028	P	19870918	EP ET	FR: TRANSLATION FILED (FR: TRADUCTION A ETE REMISE)
EP 142028	P	19871104	EP ITF	IT: TRANSLATION FOR A EP PATENT FILED (IT: DEPOSITO TRADUZIONE DI BREVETTO EUROPEO)
				ING. A. GIAMBROCONO & C. S.R.L.
EP 142028	P	19880727	EP 26N	NO OPPOSITION FILED (KEIN

EINSPRUCH EINGELEGT)

EP 142028	P	19911031	EP ITTA	IT: LAST PAID ANNUAL FEE (IT: TASSA ANNUALE ULTIMO PAGAMENTO)
EP 142028	P	19950131	EP EUG	SE: EUROPEAN PATENT HAS LAPSED (SE: EUROPEISKT PATENT HAR UPPHOERT ATT GAELLA) 910603 84112148.6
EP 142028	P	19970430	EP BERE	BE: LAPSED (BE: DECHU) 961031 THE ;DOW CHEMICAL CY
EP 142028	P	19970613	CH PL/REG	PATENT CEASED (LOESCHUNG/RADIATION/RADIAZION)
EP 142028	P	19970701	EP NLV4	NL: LAPSED OR ANNUED DUE TO NON-PAYMENT OF THE ANNUAL FEE (NL: WEGENS NIET BETALEN VAN EEN JAARCIJNS VERVALLEN) 970501
EP 142028	P	20020101	GB IF02/REG	EUROPEAN PATENT IN FORCE AS OF 2002-01-01

## SPAIN (ES)

Patent (No,Kind,Date): ES 536659 A1 19880316  
 UN METODO DE ALMACENAR ENERGIA (Spanish)  
 Patent Assignee: DOW CHEMICAL CO (US)  
 Priority (No,Kind,Date): US 540726 A 19831011  
 Applic (No,Kind,Date): ES 536659 A 19841010  
 Filing Details: (Date of Coming into Force) 19880208  
 IPC: \* C09K-005/06  
 CA Abstract No: \* 103(24)198628X  
 Derwent WPI Acc No: \* C 85-123876  
 Language of Document: Spanish

Patent (No,Kind,Date): ES 8802070 A1 19880601  
 UN METODO DE ALMACENAR ENERGIA (Spanish)  
 Patent Assignee: DOW CHEMICAL CO (US)  
 Priority (No,Kind,Date): US 540726 A 19831011  
 Applic (No,Kind,Date): ES 536659 A 19841010  
 Filing Details: (Date of Coming into Force) 19880208  
 IPC: \* C09K-005/06  
 CA Abstract No: \* 103(24)198628X  
 Derwent WPI Acc No: \* C 85-123876  
 Language of Document: Spanish

Patent (No,Kind,Date): ES 536659 A5 19880415  
 UN METODO DE ALMACENAR ENERGIA (Spanish)  
 Patent Assignee: DOW CHEMICAL CO (US)  
 Priority (No,Kind,Date): US 540726 A 19831011  
 Applic (No,Kind,Date): ES 536659 A 19841010  
 Filing Details: (Date of Coming into Force) 19880208 (Date of  
 Previous Publication) 19880316  
 IPC: \* C09K-005/06  
 CA Abstract No: \* 103(24)198628X  
 Derwent WPI Acc No: \* C 85-123876  
 Language of Document: Spanish

## SPAIN (ES)

Legal Status (No,Type,Date,Code,Text):  
 ES 536659 AA 19991201 ES FD1A PATENT LAPSED (PATENTE  
 CADUCIDADES)  
 19991007

## ISRAEL (IL)

Patent (No,Kind,Date): IL 73138 A0 19850131  
 REVERSIBLE PHASE CHANGE COMPOSITION FOR STORING THERMAL ENERGY  
 (English)  
 Patent Assignee: DOW CHEMICAL CO

Priority (No,Kind,Date): US 540726 A 19831011  
Applic (No,Kind,Date): IL 73138 A 19841002  
IPC: \* C09K  
Language of Document: English  
Patent (No,Kind,Date): IL 73138 A1 19880630  
REVERSIBLE PHASE CHANGE COMPOSITION FOR STORING THERMAL ENERGY  
(English)  
Patent Assignee: DOW CHEMICAL CO (US)  
Author (Inventor): GEORGE A LANE; ARTHUR S TEOT; HAROLD E ROSSOW  
Priority (No,Kind,Date): US 540726 A 19831011  
Applic (No,Kind,Date): IL 73138 A 19841002  
IPC: \* C09K-005/02  
CA Abstract No: \* 103(24)198628X  
Derwent WPI Acc No: \* C 85-123876  
Language of Document: English  
ISRAEL (IL)  
Legal Status (No,Type,Date,Code,Text):  
IL 73138 P 19991028 IL RH PATENTS VOID  
INDIA (IN)  
Patent (No,Kind,Date): IN 161738 A 19880130  
A THERMAL ENERGY STORAGE MATERIAL (English)  
Patent Assignee: DOW CHEMICAL CO  
Author (Inventor): GEORGE A LANE; ARTHUR S TEOT; HAROLD E ROSSOW  
Priority (No,Kind,Date): US 540726 A 19831011  
Applic (No,Kind,Date): IN 84MA756 A 19841008  
IPC: \* C01F-001/00  
CA Abstract No: \* 103(24)198628X  
Derwent WPI Acc No: \* C 85-123876  
Language of Document: English  
JAPAN (JP)  
Patent (No,Kind,Date): JP 60101167 A2 19850605  
REVERSIBLE PHASE TRANSFER COMPOSITION FOR HEAT ENERGY STORAGE (English)  
Patent Assignee: DOW CHEMICAL CO  
Author (Inventor): JIYOOJI EI RAN; AASAA ESU TEOTSUTO; HARORUDO II  
ROTSUSOU  
Priority (No,Kind,Date): US 540726 A 19831011  
Applic (No,Kind,Date): JP 84211571 A 19841011  
IPC: \* C09K-005/00  
Language of Document: Japanese  
Patent (No,Kind,Date): JP 89034550 B4 19890719  
Patent Assignee: DOW CHEMICAL CO  
Author (Inventor): JOOJI EI RAN; AASAA ESU TEOTSUTO; HARORUDO II  
ROTSUSOU  
Priority (No,Kind,Date): US 540726 A 19831011  
Applic (No,Kind,Date): JP 84211571 A 19841011  
IPC: \* C09K-005/00; F24C-015/34  
Language of Document: Japanese  
KOREA, REPUBLIC (KR)  
Patent (No,Kind,Date): KR 8601895 B1 19861024  
REVERSIBLE PHASE CHANGE COMPOSITION FOR STORING THERMAL ENERGY  
(English)  
Patent Assignee: DOW CHEMICAL CO (US)  
Author (Inventor): LANE GEORGE A (US); TEOT ARTHUR S (US); ROSSOW  
HAROLD E (US)  
Priority (No,Kind,Date): US 540726 A 19831011  
Applic (No,Kind,Date): KR 846299 A 19841011  
IPC: \* C09K-005/06  
Language of Document: Korean  
NORWAY (NO)

Patent (No,Kind,Date): NO 8404057 A 19850412  
 REVERSIBEL FASEFORANDRINGSBLANDING FOR LAGRING AV TERMISK ENERGI  
 (Norwegian)  
 Patent Assignee: DOW CHEMICAL CO (US)  
 Author (Inventor): LANE GEORGE A; TEOT ARTHUR S; ROSSOW HAROLD E  
 Priority (No,Kind,Date): US 540726 A 19831011  
 Applic (No,Kind,Date): NO 844057 A 19841010  
 IPC: \* C09K

Language of Document: Norwegian  
 Patent (No,Kind,Date): NO 160789 B 19890220  
 LAGRINGSMATERIALE FOR TERMISK ENERGI. (Norwegian)  
 Patent Assignee: DOW CHEMICAL CO (US)  
 Author (Inventor): LANE GEORGE A; TEOT ARTHUR S; ROSSOW HAROLD E  
 Priority (No,Kind,Date): US 540726 A 19831011  
 Applic (No,Kind,Date): NO 844057 A 19841010  
 IPC: \* C09K-005/06

CA Abstract No: \* 103(24)198628X  
 Derwent WPI Acc No: \* C 85-123876  
 Language of Document: Norwegian

Patent (No,Kind,Date): NO 160789 C 19890531  
 LAGRINGSMATERIALE FOR TERMISK ENERGI. (Norwegian)  
 Patent Assignee: DOW CHEMICAL CO (US)  
 Author (Inventor): LANE GEORGE A; TEOT ARTHUR S; ROSSOW HAROLD E  
 Priority (No,Kind,Date): US 540726 A 19831011  
 Applic (No,Kind,Date): NO 844057 A 19841010  
 IPC: \* C09K-005/06

CA Abstract No: \* 103(24)198628X  
 Derwent WPI Acc No: \* C 85-123876  
 Language of Document: Norwegian

#### NEW ZEALAND (NZ)

Patent (No,Kind,Date): NZ 209739 A 19870430  
 REVERSIBLE PHASE CHANGE THERMAL ENERGY STORAGE COMPOSITIONS CONTAINING  
 HYDRATED INORGANIC SALTS AND A CATIONIC SURFACTANT THICKENING AGENT  
 (English)  
 Patent Assignee: DOW CHEMICAL CO  
 Author (Inventor): LANE G A; TEOT A S; ROSSOW H E  
 Priority (No,Kind,Date): US 540726 A 19831011  
 Applic (No,Kind,Date): NZ 209739 A 19841002  
 IPC: \* C09K-005/00  
 Language of Document: English

#### UNITED STATES OF AMERICA (US)

Patent (No,Kind,Date): US 4585572 A 19860429  
 REVERSIBLE PHASE CHANGE COMPOSITION FOR STORING THERMAL ENERGY  
 (English)  
 Patent Assignee: DOW CHEMICAL CO (US)  
 Author (Inventor): LANE GEORGE A (US); ROSSOW HAROLD E (US); TEOT  
 ARTHUR S (US)  
 Priority (No,Kind,Date): US 540726 A 19831011  
 Applic (No,Kind,Date): US 540726 A 19831011  
 National Class: \* US 252070000; US 252315100; US 252315200; US  
 126400000; US 126452000; US 165104120  
 IPC: \* C09K-003/18

Language of Document: English

#### UNITED STATES OF AMERICA (US)

Legal Status (No,Type,Date,Code,Text):  
 US 4585572 P 19831011 US AE APPL. DATA (PATENT)  
 US 540726 A 19831011  
 US 4585572 P 19860210 US AS02 ASSIGNMENT OF ASSIGNOR'S  
 INTEREST

DOW CHEMICAL COMPANY THE, ; LANE, GEORGE A. :  
19831010; ROSSOW, HAROLD E. : 19831010; TEOT,  
ARTHUR S. : 19831010

US 4585572      P    19860429    US A      PATENT  
SOUTH AFRICA (ZA)  
Patent (No,Kind,Date):    ZA 8407844    A    19860528  
REVERSIBLE PHASE CHANGE COMPOSITION FOR STORING THERMAL ENERGY  
(English)  
Patent Assignee:    DOW CHEMICAL CO  
Author (Inventor):    LANE GEORGE A; TEOT ARTHUR S; ROSSOW HAROLD E  
Priority (No,Kind,Date):    US 540726    A    19831011  
Applic (No,Kind,Date):    ZA 847844    A    19841005  
IPC:    \*    C09K  
CA Abstract No:    \*    103(24)198628X  
Derwent WPI Acc No:    \*    C    85-123876  
Language of Document:    English

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